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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,410	03/22/2004	Akihito Okura	250743US90	9849

22850 7590 11/18/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
PHUNG, LUAT	
ART UNIT	PAPER NUMBER
2416	

NOTIFICATION DATE	DELIVERY MODE
11/18/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/805,410	OKURA ET AL.	
	Examiner	Art Unit	
	LUAT PHUNG	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections in this office action are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 25, 2008 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 6 is rejected under U.S.C. 103(a) as being unpatentable over Winther et al (US Pub. 2002/0141382).

Regarding claim 6, Winther discloses a router in an IP network (para. 58), comprising:

a control and relay unit configured to control and route at said router in accordance with first bits for implementing bandwidth control at said router stored in a first area assigned within an IP-header field of an IP packet **(para. 58-62; router manages bandwidth allocation for the transmission of IP data packet by setting type of service (TOS) octet of IP header, including precedence field defining three priority levels for businesses with significant data requirements (e.g., T3 or**

44Mbps), medium- and small-sized businesses (e.g., 1Mbps) and home-based customers (lowest transmission requirement), i.e., precedence being used for bandwidth control), and second bits stored in a second area also assigned within said IP-header field of the IP packet **(para. 58, 59; TOS field in TOS octet of IP header)**, wherein said first bits and said second bits do not interfere with each other within said IP-header field of the IP packet **(Fig. 6, elements PRECEDENCE 138 and TOS 140 in TOS octet 134 of IP header 154; para. 57)**.

Winther expressly discloses second bits but not *second bits that indicate a path for routing the IP packet to a destination router at said router.* However, Winther discloses router accepting data packets and routing them to a control node **(para. 47)**. Furthermore, it is well known to one of ordinary skill in the art at the time of the invention that TOS field is used for routing packets in an IP network. For example, RFC 1349 (Type of Service in the Internet Protocol Suite), sec. 7 (Use of the TOS Field in Routing), specifically sec. 7.2 recites "A router in the Internet should be able to consider the value of the TOS field when choosing an appropriate path over which to forward an IP packet." That is, Winther discloses TOS field that indicates a path for routing IP packets.

7. Claims 1, 3-5, 7 and 8 are rejected under U.S.C. 103(a) as being unpatentable over Winther et al in view of Beshai et al (US Pub. 2002/0131363).

Regarding claims 1 and 5, Winther discloses all of the subject matter as previously recited in the rejection of claim 6 except a reporting unit configured to report

to the routers the first bits and the second bits stored by the storing unit. Beshai from the same or similar fields of endeavor discloses a QoS controller comprising a reporting unit **(Fig. 1, element 26)** configured to report to the routers **(Fig. 1; elements 22)** traffic data and state information **(Fig. 1, lines from elements 22 to 26; para. 13, 15)**. Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the system being able to store router-control and routing bits of Winther with the reporting capability of Beshai by having the system reporting these types of bits to the routers in the network. The motivation for such a combination would have been to refine the routing features across the network.

Regarding claim 3, the combination of Winther and Beshai discloses substantially all of the subject matter as previously recited in this office action. Winther further discloses further comprising a database unit **(Fig. 5, element 114)**, wherein the database unit represents a first bit sequence as a router-control class for controlling the routers **(para. 59-62; precedence field being used for bandwidth allocation of the router)**, and a second bit sequence as a routing class for routing at the routers **(para. 64; TOS field being used for routing)**, and stores, in accordance with a type of the IP packet, a relationship between the router-control class and the routing class. **(para. 65; varying levels of service through setting of precedence field and TOS field).** Winther does not explicitly disclose:

wherein the reporting unit reports to the routers the relationship, stored at the database unit, between the router-control class and the routing class.

Beshai from the same or similar fields of endeavor discloses:

wherein the reporting unit reports to the routers the relationship, stored at the database unit, between the router-control class and the routing class **(para. 16-19; para. 26, lines 1-5).**

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the system being able to manage router-control and routing bits of Winther with the reporting capability of Beshai by having the system reporting updates related to these types of bits to the routers in the network. The motivation for such a combination would have been to refine the routing features across the network.

Regarding claim 4, the combination of Winther and Beshai discloses all of the subject matter as previously recited in this office action. Winther further discloses a corresponding-relationship updating unit configured to change the relationship stored at the database unit, between the router-control class and the routing class, based on the monitored traffic condition. **(para. 65)**

Winther does not explicitly disclose:

a traffic-monitoring unit configured to monitor traffic conditions at the routers;

wherein the reporting unit reports to the routers the relationship changed by the corresponding-relationship updating unit.

Beshai from the same or similar fields of endeavor discloses:

a traffic-monitoring unit configured to monitor traffic conditions at the routers **(Fig. 1, element 26; line "Traffic Data" from element 22)**;

wherein the reporting unit reports to the routers the relationship changed by the corresponding-relationship updating unit **(para. 16-19; para. 26, lines 1-5)**.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the system being able to manage router-control and routing bits of Winther with the reporting capability of Beshai by having the system monitoring traffic conditions and reporting updates related to these types of bits to the routers in the network. The motivation for such a combination would have been to refine the routing features across the network.

Regarding claims 7, Winther further discloses a router comprising a setting unit **(Fig. 5, element 114)** configured to set, based on a type of the IP packet, a router-control class to the first bits and a routing class to the second bits. **(para. 59-65)**

Winther does not explicitly disclose the router is arranged at a boundary of the IP network. Beshai from the same or similar fields of endeavor discloses a router arranged at a boundary of an IP network **(node in Fig. I, element 22; para. 28, line 1)**. Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the router of Winther with the network of Beshai by placing the router at the edge of the network. The motivation for such a combination would have been to refine the routing features across the network.

Regarding claims 8, Winther does not explicitly disclose further comprising:

a traffic-measuring unit configured to measure volume of traffic flowing into the router; and

a traffic-condition reporting unit, configured to report the measured volume as a traffic report to a QoS controller connected to the IP network, as recited in claim 8.

Beshai from the same or similar fields of endeavor discloses a router comprising: a traffic-measuring unit **(Fig. 1, element 28)** configured to measure volume of traffic flowing into the router; **(para. 51, lines 23-24; para. 87, lines 5-7)** and a traffic-condition reporting unit **(Fig. 1, element 28)**, configured to report the measured volume as a traffic report to a QoS controller connected to the IP network. **(para. 51, lines 26-30)**. Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the router using, router-control and routing bits of Winther with the router with traffic measuring and reporting of Beshai by adding the measurements capability on the router. The motivation for such a combination would have been to refine the routing features across the network.

8. Claim 2 is rejected under U.S.C. 103(a) as being unpatentable over Winther et al in view of Beshai et al, and further in view of Colley et al (US 6,650,644).

Regarding claim 2, the combination of Winther and Beshai discloses all of the subject matter except wherein the storing unit further comprises a storing-control unit configured to change a ratio of the first bit area to the second bit area so as to store the first bits into the first bit area and the second bits into the second bit area. Colley from the same or similar fields of endeavor discloses a storing-control unit **(Fig. 1, element 26)** configured to change the size of the fields in the TOS octet of the IP header **(col. 5, line 57 to col. 6, line 12)**. Thus it would have been obvious to the person of ordinary

skill in the art at the time of the invention to change the ratio of the first bit area and the second bit area by adjusting the fields in the TOS octet, as suggested by Colley, in particular, the precedence and TOS fields as disclosed by Winther, in the system of Winther and Beshai, in order to further refine QoS management control.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form 892).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUAT PHUNG whose telephone number is (571) 270-3126. The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. P./

Examiner, Art Unit 2416

/Ricky Ngo/

Supervisory Patent Examiner, Art Unit 2416